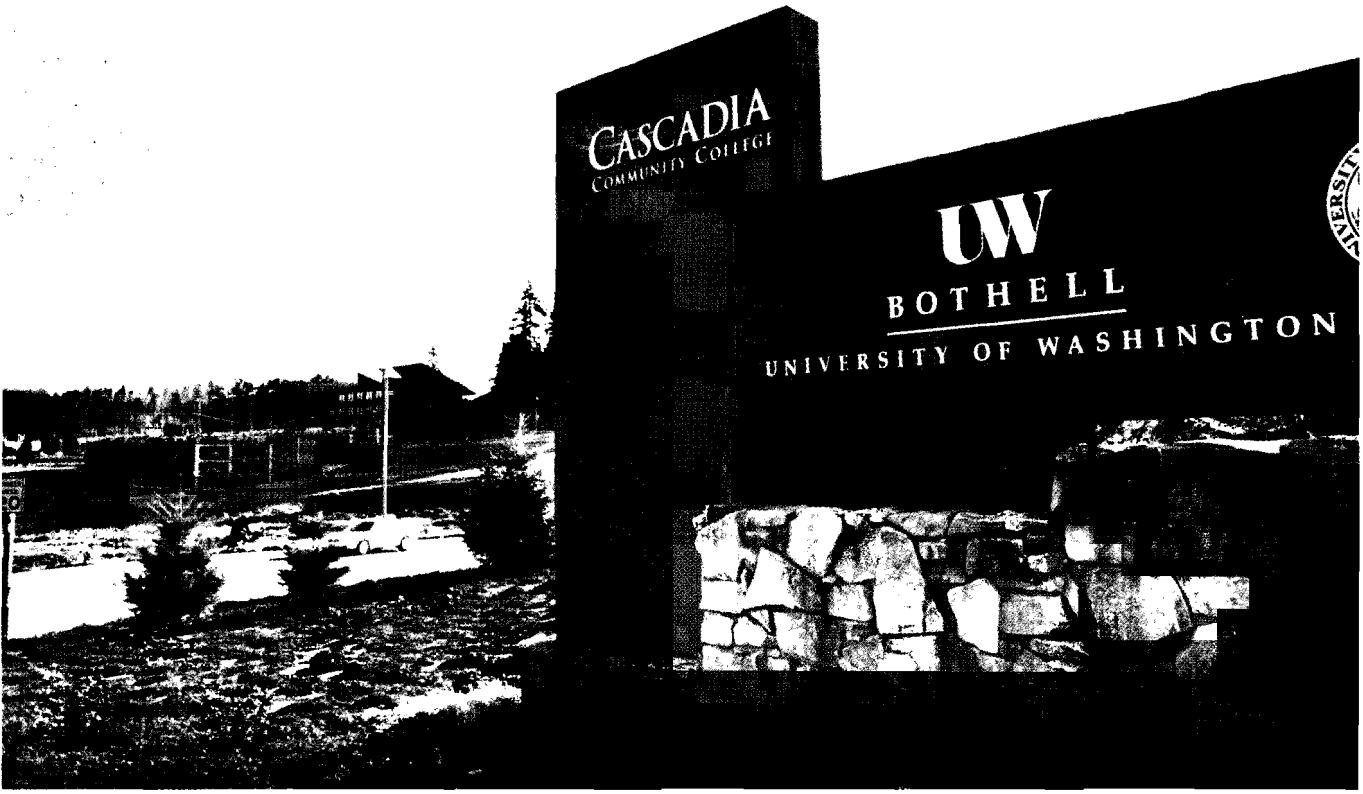

Built to Teach

What your alma mater could learn from Cascadia Community College

By Kevin Carey

In most ways, Hayley Bates is a typical American college student. She goes to a public school in the suburbs of Seattle, working part-time in a movie theater to pay tuition. Her ambitions are strong but still unfocused—she thinks she wants to run an organization helping students with disabilities someday, but she's not sure how to get from here to there. Her older brother is a college dropout, and she's determined not to make the same mistake. College is fun on some days; on others, it's a grind.

Most students can't judge how well their college is teaching them because they have no direct point of comparison. In this regard, Hayley's perspective is unusual. To fulfill her wide-ranging course requirements, she is enrolled simultaneously at two institutions of higher education. At one, a branch campus of the well-regarded University of Washington, her experiences would be familiar to most college graduates. She sits in the back of the classroom listening to lectures from professors who devote much of their time to publishing enough research to win tenure. The courses are straightforward and not that difficult—"lenient," she says. Because her professor puts all his lecture notes online, "you don't always even have to go to class."

At the other college, however, things are ... different. "Harder." First of all, her professor never seems to explain anything. Instead, he's constantly posing questions that seem deliberately vague, then he "tells you to go find the materials and figure out the answer for yourself." She can't skip class, even if it's been a long day selling popcorn, because she's part of a group of students who are all doing hands-on research and wrestling with tricky questions together; she doesn't want to let them down. She feels like she's learning a lot, sure, but she didn't realize college would be so much work.

The most surprising thing is that Hayley's other college isn't some kind of elite school that only accepts the smart students who can handle such a tough workload. It's a two-year institution that hardly anyone outside of Seattle has ever heard of: Cascadia Community College.

Aside from a few pockets of innovation, two decades of research about how students learn has had almost no effect on how universities teach.

That a two-year college could be more academically rigorous than a four-year university—one that's a "first tier" national university, according to *U.S. News & World Report*—would seem unlikely. It's long been an article of faith in higher education that any four-year university is better than any two-year college. Yet Hayley's experience of the comparative advantage of Cascadia (which is located next to the University of Washington) is borne out by hard data. Although its enrollees typically have less promising academic backgrounds than UW freshman, Cascadia graduates who then continue at UW earn better grades than their peers. It's hard to imagine a clearer indication that the education students receive at Cascadia is superior.

Indeed, other measures of teaching quality suggest that Cascadia is the best community college in America. Using data from a well-respected survey of educational best practices, the Community College Survey of Student Engagement, the *Washington Monthly* has created the first-ever list of the nation's top two-year colleges. (See "America's Best Community Colleges," page 24.) Cascadia places number two overall, and in those measures most closely correlated with high grades and graduation rates—the extent to which teaching is "active and collaborative"—Cascadia tops the list.

Cascadia's success is extraordinary. But the difference doesn't depend on funding: the money spent per pupil at Cascadia is typical among community colleges, and about half that spent at the University of Washington. Nor is the college's achievement the result of some secret formula not known to other educators. Not explaining things and making students work in teams to discover answers turn out to be precisely the kinds of teaching practices that decades of research say help students learn most. Yet the vast majority of four-year colleges and universities don't teach their undergraduates this way. Instead, they rely far too often on the same old teaching methods nobody thinks are any good.

Most four-year schools teach poorly for a simple reason: they were designed with another purpose in mind. America's dominant model for higher education was developed in the late nineteenth century, when the nation's student population was very different than today. Institutions like Germany's renowned Humboldt University were the inspiration: academies where highly trained scholars focused primarily on original research. Students, it was assumed, would benefit from close contact with learned masters who would impart the information they discovered in the form of lectures. The spirit of the age was summed up in the single word dominating the seal of Harvard: *Veritas*. Truth—the extension of knowledge through high-level research—was the order of the day. As a way of expanding the frontiers of human understanding, this proved a massive success. America's research universities became the envy of the world, gestating world-class minds and fueling economic growth.

But the twentieth century also brought a sea change: mass undergraduate education. High school became universal, preparing more students for college. The returning veterans who flooded college campuses on the GI Bill after World War II were followed by the baby boomers, along with minorities and women emancipated by civil rights and social change. As the economy evolved and high-paying blue-collar jobs disappeared, still more students sought college diplomas. To meet the tidal wave of new demand, states expanded their flagship universities to mammoth proportions—30,000, 40,000, 50,000 students or more—and built hundreds more public universities in a similar mold. The logic seemed impeccable: the lecture model of education was cheap and easy to bring to scale, and the universities could

house the researchers needed to drive economic expansion and fight the cold war.

Unfortunately, there was a problem: the old model turned out to be a terrible way to teach most undergraduates. The standard lecture did little to engage students or push them to do the hard, hands-on work necessary to truly grasp college-level material. The doctoral programs that produced the nation's college professors offered little or no instruction on the theory or practice of teaching. Instead, they trained and tenured PhDs in narrow areas of scholarship, who were then hired and promoted based wholly on their research, not their aptitude in the classroom.

The sharpest observers realized the mistake in expanding a system ill-suited for its primary mission, educating undergraduates. In 1963, Clark Kerr, the legendary architect of the California higher education system, delivered a historic lecture series at Harvard where he warned of the "cruel paradox" that "a superior faculty results in an inferior concern for undergraduate teaching." As he later explained, the emphasis on research and the emphasis on teaching "were not as compatible as we first assumed ... the German Humboldt model assumed that teaching is always and in all ways improved by engagement with research. It is not." The upshot, as Kerr foresaw and others later came to realize, was that "educational policy for undergraduates was neglected."

About the same time that the great expansion of higher education leveled off in the 1970s, a new wave of researchers studied and defined teaching methods superior to what most undergraduates actually received. Among the most famous was a seminal 1987 paper by researchers Arthur Chickering and Zelda Gamson, "Seven Principles for Good Practice in Undergraduate Education." Synthesizing years of cognitive science and educational research, Chickering and Gamson mapped out the fundamental principles of effective teaching: The more students *actively* engage with subject matter, the better they master material and develop critical skills. Undergraduates learn most when they're asked to solve problems, perform original research, work collaboratively—and receive regular feedback from the professor and their peers. The passive, impersonal lecture turned out to be the worst of all possible worlds.

A good education is a lot of work. So it makes sense that, as the research also showed, students learn more when colleges set high expectations. Many professors focused on scholarship don't want to be accountable for the quality of their teaching, while many students focused on simply getting a credential—or on going to next weekend's keg party—don't want to work hard to earn a good grade. As a result, many college courses are both easy and badly taught, one reason a recent study from the American Institutes for Research found that only 38 percent of four-year college graduates can successfully compare and contrast the viewpoints of two newspaper editorials. It's also why employers increasingly bemoan the fact that college grads come to them unable to write a coherent memo or work effectively with other people.

Chickering and Gamson's principles soon became widely accepted in higher education circles. But the shocking thing

is that aside from a few pockets of innovation in isolated university departments or less known institutions like Alverno College in Wisconsin, the truth about how students learn had almost no effect on how universities teach.

The traditional methods were kept alive for a number of reasons. First, the old lecture format served a purpose—freeing up time and money for faculty to spend pursuing scholarship and research, the primary goals of the university built on the nineteenth-century model. Second, for all their public liberalism, academics tend to be deeply conservative when it comes to the nature of their profession and the university itself. Lastly, there was little outside pressure—from students, parents, or politicians—pushing for universities to uproot old traditions and put in practice these proven principles about how students learn. Few things change without pressure, and most universities—secure in their position as the monopoly provider of increasingly valuable educational credentials—had no compelling reason to stop being what they had been for so long.

What allowed Cascadia to be different was that it was built from the ground up in a time and place when challenging convention and testing new ideas was in the air. In the mid-1990s, Washington's legislature decided to build the state's first new community college in more than three decades. They selected a site in suburban Seattle, less than fifteen miles from the campus of Microsoft. The first bricks were laid in 1998, during the heart of the dot-com boom.

Cascadia's founders, including the first president, Victoria Muñoz Richart, had spent years immersed in research on how students learn. Frustrated by the glacial pace of change at established schools, Richart saw in Cascadia a chance to start "from scratch" and "an opportunity to incorporate the best that research on students, curriculum design, and teaching and learning could offer." She was determined to translate educational theory into practice. Cascadia's strategic plan emphasizes four principles familiar to Chickering and Gamson: active learning, collaborative learning, critical thinking, and communication. The principles are seen as both superior ways of teaching and valuable skills to impart to students in their own right. (They're also so well known at the school that last year's commencement speaker organized the speech around them.) From the beginning, the chief criterion for decisions at Cascadia, ranging from hiring faculty to building infrastructure, was fidelity to this original mission.

Even before its doors opened, Cascadia was built to be different. Its classrooms were designed to seat students facing each other at tables rather than in rows of chairs facing the professor. The message was obvious: student engagement was in; one-way lectures were out. Walking through the hallways, as I did when I visited the campus this spring, another difference is clear. One comes first to what appears to be a lounge

area, with comfortable chairs and glass windows, where students meet; a few feet later, there are a couple of classrooms; just beyond that, there's a bank of computers where students can look up articles during class. Rather than the traditional college setup, which segregates the classrooms in one building, administrative offices in another, and study lounges and coffee shops in a student union, Cascadia's design encourages students and faculty to move between these spaces. In practical terms, this allows professors the flexibility within each class to start a discussion in the classroom, ask students to research topics online for a half hour, then decamp to the lounge for discussion, all within a few yards' distance. This makes it easier to integrate group discussions, real-time research, and student presentations—all manifestations of the four principles in action—without losing someone on the trek to the computer lab. (It's no coincidence that this design bears a resemblance to many knowledge-industry offices.)

When hiring faculty, Cascadia has been selective in a way even the most exclusive four-year colleges are not. At most colleges, professors are hired and promoted based on their research, and given near carte blanche to teach as they please. Cascadia, however, recruits faculty with subject expertise who are also committed to and capable of good teaching. It then gives them the resources to improve. Once hired, new faculty work with veterans at the college's internal "teaching and learning academy." Part of the tenure track includes classroom observation and critiques. This might sound like more trouble for the teachers, but despite—or perhaps because of—its more rigorous standards, Cascadia has attracted a bevy of talented educators. Thirty-eight percent of Cascadia's full-time professors have PhDs, well above the national average for community colleges. It's true that at almost every college in America it's possible to find a few outstanding teachers, yet these professors are usually the exception, not the rule. At Cascadia, good teaching—the expectation and the resources to learn—is part of the design.

There aren't hard-and-fast rules at Cascadia prohibiting, say, long lectures. But the reason you hardly ever see professorial monologues is because the college has another enforcement mechanism: a shared educational culture. It has a set of norms and powerful common expectations that, unlike those that animate traditional colleges, value teaching and learning above all else. That culture is sustained in many ways. Rather than segregate faculty by academic discipline, Cascadia physically groups professors around the four principles. A math professor, for example, doesn't work in the math department; he works in the critical-thinking hallway, alongside professors who teach Spanish, accounting, communications, chemistry, biology, and English as a second language. Every spring the college holds a contest in which professors from different disciplines propose to coteach a multisubject course; teachers compete to be recognized for their innovative teaching ideas and collaborative efforts.

This results in novel approaches to subject matter that offer creative opportunities for student engagement. For instance, "Big Bangs and Little Green Men" is a combination of introductory classes in philosophy and astronomy. Students study scientific phenomena "as a way to explore what counts as a good reason for believing something to be true." Each week's class readings combine chapters from scientific textbooks on gravity, light, and planet formation with readings from the likes of Plato, Descartes, and Hume. The professors who coteach the course have found that abstract philosophical ideas are easier to grasp when they're presented in the context of real-world examples, while hard scientific facts are more resonant when they're applied to larger questions of meaning and truth. In another course, which combines English and psychology, students study brain anatomy and write autobiographical essays recounting an event from childhood that was witnessed by a family member or other person. Then the students interview the observer and study the discrepancies between the two accounts as a way of exploring psychological debates about constructed and repressed memories.

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Professors work hard to keep students working hard. In one communications course, for instance, Professor David Ortiz assigned students to investigate the raging controversy over immigration reform by gathering information from two sources: academic journal articles available through electronic databases, and firsthand accounts from local minority-focused community publications like *Colors Northwest*. Students had to make sense of the hugely divergent facts and perspectives, present their conclusions back to the class, and defend their findings. As Ortiz explained his philosophy, "We don't just pour knowledge into the students' heads. I could easily set up a lecture where all the answers are embedded, but that's missing the point." The format requires more effort from the students—but as Hayley Bates, one of Ortiz's students, can attest, it isn't an option to just skip class.

As I drove out of the Cascadia campus, past a fifty-eight-acre restored wetlands area and stands of fifty-foot pine trees that surround the small clearing where the college will soon break ground on a new building, I tried to remember if I had experienced anything similar in my own undergraduate days, nearly twenty years ago. I realized I had—but never in a classroom. I learned most of what was, in retrospect, worth knowing by talking and arguing with other students, during the intense dialogues that come naturally to people who are still defining themselves, still learning how to learn. Cascadia has simply taken this reality of the human learning process and built a whole college around it. Rather than starting with what researchers happen to find interesting and lecturing—*professing*—those things to students, they started with the skills people need to succeed in the modern world. Rather than teach in the way that is easiest and most comfortable for teachers, they teach in the way that research says actually works best for students.

It's not often that a giant flaw in a vital public institution is known but almost completely ignored for decades on end. But that's exactly what's happened—Clark Kerr's words ring as true today as they did in 1963. Chickering and Gamson's seven principles were published twenty years ago, and now colleges like Cascadia offer proof positive that the ideas work in practice—not just in a class here or there, but college-wide. Yet poor teaching still abounds. As former Harvard President Derek Bok recently said, "Colleges and universities, for all the benefits they bring, accomplish far less for their students than they should." That institutions built to educate and discover the truth refuse to implement the successful teaching practices that they themselves have discovered is a bitter and consequential irony.

Fixing this won't be easy. New colleges and universities aren't built very often, and we can't just tear down the ones we have and replace them. There's no reason, moreover, to believe that our institutions of higher education will voluntarily change on their own.

But there is at least one proven way to make many college presidents stand up, take notice, and rapidly implement reforms: alter their reputation in the marketplace. The *U.S. News* college rankings may be terribly flawed, but they're undeniably influential. When the magazine began including alumni giving rates in the rankings equation, hundreds of call centers sprang up across the land to start bugging people at dinnertime for donations. If institutional reputations hung on measures of quality teaching, higher education leaders would finally have a strong reason to make the difficult choices they have for decades managed to avoid. Reliable measures of educational excellence for four-year schools do exist, but right now college administrators are the only ones who ever see them. Students and parents need information before they can exert pressure for reform, and Washington should mandate that we all have access to it.

This would be a boon for undergraduates, because the most important lesson Cascadia offers is this: The best colleges don't have to be reserved for the "best" students. Students don't need to claw their way into elite schools to get a great education—indeed, the very things that make colleges elite often make them, in Kerr's cruel paradox, bad at teaching. *Any* college—big or small, old or new, world-famous or hardly known—can give students the kind of top-flight education they need in a world that increasingly values learning above all else. WM

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